

METHOD FOR IMPROVED LOCAL PLANARITY CONTROL DURING ELECTROPOLISHING

ABSTRACT OF THE DISCLOSURE

A metal layer formed on a semiconductor wafer is planarized by applying sequentially a deplating step, a plating step, and a relaxation step in a removal cycle. A series of cycles are performed sequentially in one embodiment to comprise a pass. The removal cycle is repeated in sequence until the pass is completed. The respective deplating and plating rates are adjusted so that the ratios of deplating rates to plating rates progressively decrease from an initial pass to a final pass. Organic additives are added to the electrolytic plating solution to control the plating portion of the cycle in a topography dependant fashion.